

ABSTRACT

A MEMS scanning mirror device includes a scanning mirror, rotational comb teeth, stationary comb teeth, distributed serpentine springs, and anchors. The scanning mirror and the rotational comb teeth are driven by electrostatic force from stationary in-plane and/or out-of-plane teeth. The mirror is attached to the rotational comb structure by multiple support attachments. Multiple serpentine springs serve as the flexible hinges that link the movable structure to the stationary support structure.